# Sealant Survey Report: FY02 Iowa Department of Public Health Bureau of Oral Health

For the fourth consecutive year, the Iowa Department of Public Health (IDPH) has completed a survey to determine the prevalence of dental sealants on permanent molars of third-grade children in Iowa. The results from the four surveys provide information about the use of dental sealants, a procedure that prevents decay from developing on the chewing surfaces of molars. The following describes the process for conducting the 2002 survey and the results.

# **Subjects**

Based on information from the Iowa Department of Education, the number of third-graders in Iowa public schools for school year 2001-2002 was 35,204. A computerized random sample of 1,727 third-grade children was selected, based upon the location of 26 Title V child health centers in Iowa.

# **Examiners and support staff**

The survey was conducted in collaboration with the state's Title V child health centers, each of which contracted with a dental hygienist to carry out the survey in each area. Screening protocol was given to each hygienist. The school superintendents and principals were informed, and consent forms were provided to each school to be completed by parents/guardians prior to the date of the survey.

### **Materials and methods**

The screenings were visual only. Mouth mirrors and dental explorers were not used, with the exception of Kalona Elementary and Graettinger Elementary. The survey used data from these two schools that was collected through school-based sealant programs. Toothbrushes were provided to all third-grade children. The brushes could be used to deflect tongue and cheeks and also to cleanse the teeth if necessary. Hygienists also had the option of using a toothpick to feel the occlusal surfaces of the molars.

#### **Data information**

The screenings determined the number of children with at least one permanent first molar with a sealant. In addition, the consent forms collected information on payment source of dental care, participation in the free and reduced lunch program, recency of last dental visit, and whether each child had a dentist. Consent forms were returned to IDPH. Data was entered and analyzed by the use of SPSS. Data collected is confidential. Any report or publication of this information requires permission from the Bureau of Oral Health at the IDPH.

# **Results**

Fifty-eight percent of the eligible students were screened (1,008 of 1,727). Of those surveyed, 42.3 percent had at least one sealant on a permanent first molar. Twenty-two percent of the students participated in the free and reduced lunch program. Fifty percent had private dental insurance, 28.5 percent paid for dental care out-of-pocket, and 12.5 percent had Medicaid or *hawk-i* as their insurance carrier.

# **Discussion**

Sealant rates for Medicaid-enrolled children rose this year to 40.2 percent from 38.8 percent in 2001. The sealant rate for children without dental insurance, 34.8 percent, and the rate for children with private dental insurance, 46.4 percent, were both nearly the same as the 2001 rates. The overall sealant rate has been rising slightly each year over the past three years (38.9% in 2000, 41.4% in 2001, and 42.3 % in 2002).

There was not a significant change from 2001in the number of children insured through Medicaid or *hawk-i* or the number of children insured through private dental insurance. However, the number of children without dental insurance (28.5%) is a decrease from the previous three years (37 % in 1999, 41% in 2000, and 34% in 2001). There are two possibilities for this decline. First, using the free/reduced lunch program participation as an indicator of income, the rate of free/reduced lunch participation, 22 percent, is much lower than the overall state participation rate, 32 percent, which may indicate fewer low-income participants in this survey. Secondly, more participants did not respond to the "dental payment source" question on the consent forms or marked "other" as a method of payment for dental care, than in previous years.

The overall rate of third-graders that had not seen a dentist for three or more years is 10.4 percent. This number is higher, 16.4 percent, for those children enrolled in Medicaid or *hawk-i*.

# **Conclusions**

Goal Statement 15-7 from *Healthy Iowans 2010* is to increase to at least 70 percent by 2010 the proportion of children in the third grade who have received protective sealants in permanent molar teeth.

While the slight increase in sealant rates each year are promising, the rate of increase is not sufficient for achieving the goal of 70 percent of third-graders having a sealant by 2010. Achievement of the 70 percent goal will require new strategies.

Increased funding sources for school-based sealant programs are necessary, targeting schools with a large number of low-income, uninsured, and underinsured children. These children are at a higher risk for tooth decay and, as this survey indicates, are less likely to have preventive dental care, such as dental sealants. Additional school-based sealant programs should directly impact the dental sealant rates for Iowa children.

Efforts to increase the number of children with a payment source for dental care will also be necessary. This could be achieved through further partnering with the Covering Kids program within the IDPH and improved outreach to families without health insurance. Identification of families that are eligible for Medicaid or *hawk-i* insurance, enrolling families in those insurance programs, and care coordination efforts through Iowa's Title V child health contractors will play a role in increased sealant use and access to routine dental care.

# **FY02 Sealant Survey Summary**

	OVERALL TOTAL	Children on F/R Lunch	Children not on F/R Lunch	No dental insurance	Medicaid or hawk-i	Private dental insurance		
Sealant Rate	42.3%	32%	45.3%	34.8%	40.2%	46.4%		
Children with a dentist	89%	83.1%	96.6%	91.9%	89.3%	96%		
Time since last dental visit								
6 months	67.8%	49.8%	77.6%	60.3%	57.9%	81.8%		
1 year	16.7%	25.1%	15.1%	22.5%	25%	12.6%		
3 years	6.9%	14.8% 5%		11.9%	12.9%	3.2%		
5 years	1.2%	3.7%	0.6%	2.2%	1.4%	0.9%		
Never	2.3%	5.8%	1.4%	3.1%	2.1%	1.3%		
Free/Reduced Lunch		Dental Insurance Coverage						
Yes	No	Private Insura	ance Me	dicaid / hawk-i	No Insurance			
21.6%	78.4%	49.6%		12.5%	28.5%			

Seal Survey						Students	Surveyed	Sealants	Percent
COUNTY	#	<b>AGENCY</b>	DISTRICT	SCHOOL	PHONE		•		
Jefferson	51	1	FAIRFIELD	PENCE		51	26	14	53.8%
Bremer	9	2	SUMNER	DURANT	319/578-5400	57	37	12	32.4%
Clinton	23	26	CAMANCHE	CAMANCHE	319/259-3016	76	41	10	24.4%
Cedar	16	3	NORTH CEDAR	NORTH CEDAR	319/432-6933	23	19	4	21.1%
Marion	63	4	PELLA	JEFFERSON	515/628-8267	67	33	19	57.6%
Muscatine	70	20	MUSCATINE	MADISON	319/263-6062	49	14	4	28.6%
Calhoun	13	5	SOUTHERN CAL	LINCOLN	712/464-3091	42	32	17	53.1%
Cass	15	6	ATLANTIC	WASHINGTON		109	56	22	39.3%
Harrison	43	6	WOODBINE	WOODBINE	712/647-2440	25	11	6	54.5%
Lee	56	12	KEOKUK	WELLS-CAREY	319/524-2581	43	24	3	12.5%
Jasper	50	9	NEWTON	WOODROW WILSON	515/792-7311	46	21	6	28.6%
Linn	57	10	CEDAR RAPIDS	POLK	319/398-2475	48	13	5	38.5%
Linn	57	10	CEDAR RAPIDS	JACKSON	319/398-2471	81	43	17	39.5%
Johnson	52	11	IOWA CITY	KIRKWOOD	319/339-6841	52	26	15	57.7%
Johnson	52	11	IOWA CITY	GRANT WOOD		69	33	23	69.7%
Scott	82	17	DAVENPORT	LINCOLN FUNDAMENTAL	319/391-1463	58	24	11	45.8%
Madison	61	13	EARLHAM		515/758-2213	48	15	9	60%
Story	85	14	AMES	FELLOWS		70	37	17	45.9%
Story	85	14	AMES		515/239-3760	43	13	5	38.5%
Sioux	84	15	ROCK VALLEY	STARKWEATHER		46	43	28	65.1%
Mitchell	66	16	ST ANSGAR	ST ANSGAR		46	40	11	27.5%
Woodbury	97	18	RIVER VALLEY	RIVER VALLEY		35	32	12	37.5%
Page	73	19	SOUTH PAGE	SOUTH PAGE	712/582-3212	13	14	5	35.7%
Palo alto	74	21	GRAETTINGER	GRAETTINGER		15	12	4	33.3%
Dubuque	31	8	DUBUQUE	EISENHOWER		81	53	30	56.6%
Clayton	22	8	CENTRAL		319/245-1472	44	30	13	43.3%
Pottawattamie	78	22	TREYNOR		712/487-3422	45	41	25	61%
Polk	77	23	DES MOINES	JEFFERSON		77	58	28	48.3%
Polk	77	23	DES MOINES	WOODLAWN		75	41	17	41.5%
Henry	44	24	NEW LONDON		319/367-0507	54	25	5	20%
Washington	92	24	MID-PRAIRIE		319/656-2243	40	24	10	41.7%
Hamilton	40	26	HUMBOLDT	TAFT		99	77	19	24.7%
TOTAL		11	11			1727	1008	426	42.3%

<sup>\*\*</sup>The results on this table do not take all consent form information into account and are based strictly on the raw count provided by the survey examiners. See the written report for the actual statistical data.